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# THE ASSURANCE MAGAZINE.

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*On the Inequitable Operation of the Property and Income Tax Enactment as regards Life and other Interests; and on the Principles by which Direct Taxation should be regulated. By CHARLES JELLICOE, Esq., Actuary to the Eagle Insurance Company.*

[Read before the Institute of Actuaries, 29th December, 1851.\*]

THE mode in which the Property and Income Tax of this country is levied, has created so much dissatisfaction, and is so universally acknowledged to be inequitable, that I am induced to call the attention of the Members of this Institute to the subject, with a view to arrive at some elucidation of the principles upon which direct taxation should be based: being satisfied that there is no tribunal before which the consideration of such a matter could be more properly brought, or where its peculiar features could be more thoroughly and efficiently investigated.†

The primary source of the disgust which the tax has given rise to, is to be found in the introduction of "Income" as one of the elements by which the tax is to be measured—it being obvious that in some cases income is the representative of real property, and that in others it is by no means of that character.

If we assume that 3 per cent. per annum is the rate of interest yielded by securities of the best description, then a tax upon *income* arising out of such securities of 7*d.* in the pound, or £2. 18*s.* 4*d.* per cent., is equivalent to a tax upon *property* of 1*s.* 9*d.* per cent.; and this is the rate of taxation upon real property which we may consider the possessors of it to be now pay-

\* It is proper to mention that additions have been made to this paper since it was read as above.

† See the writings of Mr. Peter Hardy and Mr. Ebenezer Erskine Scott on the same subject.

ing.\* But the tax, as we know, is regulated by income, and therefore varies as regards property with the nature of the income arising out of it. Thus, if, instead of being a perpetuity, the annual stipend is to continue for ten years only, then an Income-tax at the rate above mentioned operates as a tax upon property of very nearly 7*s.* instead of 1*s.* 9*d.* per cent.; and thus it happens that, under the present system, scarcely any two persons are assessed alike as regards their property, or real power to contribute, it being actually possible for the rate to vary from 1*s.* 9*d.* to £3: so that, as circumstances differ, one individual may be called upon to pay more than thirty times the sum required from another, although their real and absolute property be of precisely the same value.

It is this inequality, and the taxing professional incomes as if they arose out of real property, which constitute the great grievances of the Property and Income Tax as now levied in this country; every consideration leading to the conclusion that the contribution required from each individual ought to be directly as the means which he has of making it, or as the value of his share in the general wealth of the country, and not as the amount of his receipts in the year, which, as a general rule, affords no evidence whatever of the extent of his capability to supply the exigences of the state.†

It is, indeed, not easy to discover on what grounds the present system has been adopted. It is not more difficult to determine what a man is worth, than to ascertain what income he has got; nor is it to be supposed that the tax is any the more easily raised for being unequally distributed. It is true that, on the more correct plan, a process will in many cases have to be gone through after the income has been determined; but the process is, as will be seen, a very simple one, and is no more than the inverse of that constantly required under the arrangements existing at the present day, viz., the determination of income from property; whereas, under the system I would advocate, the object would be in every case to ascertain, either by means of the income or other-

\* To make this perfectly clear: a property yielding in perpetuity a net annual income of £1000, is worth, reckoning interest at the rate of 3 per cent. per annum, £33,333. Now, whether the former be taxed at £2. 18*s.* 4*d.* per cent., or the latter at 1*s.* 9*d.* per cent., the same result is arrived at—that is to say, the owner would in either case have to pay a tax of £29. 3*s.* 4*d.* in respect of such property.

† Of two persons, let us suppose that one has £100 per annum for ten years, and the other the like annuity for ever. The former is worth in present money £853, and the latter £3333, yet both now pay alike; and supposing the tax to cease at the end of ten years, £2480 will have escaped taxation in the interval.

wise, the exact value of the property each person stood possessed of at the precise epoch at which the assessment was made.\* This information being obtained, and a uniform per centage charged to each, the members of the whole community would, after payment of the tax, stand in exactly the same financial relation to each other as they did before, and no one would have just cause of dissatisfaction on that head.

The equity of this principle being then conceded, it remains to show in what manner we are to determine the value of the manifold and multiform descriptions of property which together constitute the entire wealth of the country at any given time. Now, as regards a very considerable portion of it, no other process would be needed than that which is to be found at all times in daily operation, viz., the ordinary one of a valuation by persons competent to form a fair and proper estimate; or, in the first instance, the owner's valuation might be required, and, provided there was no reason to consider it a partial one, eventually adopted. This simple arrangement would suffice for adjusting the tax upon freehold or household properties in houses or land, or material possessions of any description whatever. In like manner it might be applied to what, in Schedule C of the existing Act, are called profits arising from annuities and dividends, &c. These would, in almost every case, be found already valued, inasmuch as they have, with few exceptions, a market price attached to them, whether they are payments in perpetuity, or for a term only; and, as regards all these varieties of property, no better test of their value for the purpose could be found than the sum they would fetch if put up for public sale at the time of the tax being levied.

It is perhaps necessary, however shortly, to consider on what principles this market value is arrived at, or how the required estimate is to be made in the absence of any indication of that nature. To effect this, I would propose as a general method to strip the gross income or revenue, in the first place, of all those portions of it which could be looked upon as other than the mere interest of capital, and, considering the remainder as of that character, determine the capital from it at 3 per cent., or 33·333 years' purchase. This rate of conversion would place the monied

\* There is no perfectly fair indicator but this:—Of the whole property of the country a certain portion is required by the State; and as the whole is to such portion, so is the property possessed by each individual to his share of the portion required. As my friend Mr. Hill Williams (to whom I am indebted for many valuable hints on this subject) has suggested, it is the premium or per centage taken from the whole, and paid for the protection of the remainder during the given interval.

interest, as it is called, much upon a par with the owners of land, supposing the latter to be taken at the market value merely; otherwise it is not very material what rate of conversion is used, provided it be the same in every case, for it is the relative values, and not the absolute, which we are in search of for the purposes in question.

To illustrate this mode of procedure we will instance one or two cases, and take first a freehold landed estate, yielding a gross rental of £1000 per annum. Here we have to ascertain the rates, taxes, and other annual outgoings, and to make due allowance for any contingencies likely to increase or diminish the existing rental; let us suppose that on these accounts the rental is reducible to £700 per annum. The value of the estate is then to be taken at 33·333 times that rental, or £23,333, and the tax would accordingly be £20. 8s. 4d. from year to year, so long as the value of the estate and the rate of assessment remained the same. If, instead of a freehold, the case were that of a leasehold tenement held for a term only, and having 21 years still to run, the process would be somewhat different. We must consider that for every £100 invested in such a property, the purchaser should have interest—say £3; an annual payment sufficient, when improved at the same rate, to reproduce his capital at the expiration of the term—in this case about £3. 10s.; compensation for non-tenancy, for repairs, and for other sources of depreciation, which will necessarily vary with circumstances, but which we will suppose in the present case to amount to £2. 10s. more. It thus appears that every £9 of rental is not worth more than £100; and consequently a rental of £1000 would be valued under such circumstances at £11,111. The tax on this, at 1s. 9d. per cent., would of course be £9. 14s. 5d., or £2. 18s. 4d. per cent. *on the interest of* £11,111; according to the present system it would probably be much the same as in the case of the freehold—that is to say, more than double what it ought to be. These instances will suffice to show the mode of proceeding as regards simple annuities and dividends of every kind, whether perpetual or temporary. For the valuation of the latter, one table only would be necessary, exhibiting the annual sum required when invested at 3 per cent. to produce £100 at the end of any number of years. The addition of this in the particular case to the interest, would at once show what annuity for that term was worth £100, and hence the value of any other annuity of the same duration might be easily arrived at.

The valuation of annuities dependent upon human life, or life

interests, as they are sometimes called, would not be attended with any difficulty. Indeed, the Government itself has afforded one means of arriving at the value of these, in the price which it has set upon its own annuities, and which would, of course, indicate the value of any annuity or life interest whatever. I would, however, rather seek to carry out the principle generally which I have already alluded to, and which regards the payments of every terminable annuity as made up of interest upon its value, and the annual sum required to reproduce such value at the expiration of the term. This would be effected very readily by the adoption of a table of life premiums, calculated to be payable at the end of the year and not in advance. The addition of these to the interest in any particular case would show at once the rates between the life annuity and its value, as in the case of annuities certain already mentioned. Thus, supposing the age of the annuitant to be 40, and the annual payment required to produce £100 at his death, as shown by the table, to be £3, we have at once 100 to 3. + 3., or 100 to 6, as the ratio between the annuity and its value; in other words, we find that any annuity on his life is worth 16·666 years' purchase.

What has been said, however, would not apply in practice to the case of life interests in real estates, or in perpetual annuities, inasmuch as there would not often be any one who could be made responsible for that part of the tax which applied to the value of the reversion. There would, probably, be no better means of arranging this than for the life in possession to pay the tax on the value of the fee, charging upon it from year to year the reversioner's share, to be defrayed on the latter coming into possession. Under the present system the life in possession pays the reversioner's share of the tax as well as his own, the latter escaping its operation altogether. By the plan proposed, his estate, on his succession to it, would be liable to the representatives of the previous possessor for so many payments of his share of the tax, together with interest upon them, as had been made on his account. There would be no difficulty in determining the amount of the reversioner's share; it might fairly be taken as the difference between the sum payable in respect of the fee, and that due on account of the life interest.\*

\* We may suppose an estate to be worth £10,000; the value to the life in possession being half that sum, and the remainder the value of the reversion. If there be no one else to pay the tax on the reversion, the life in possession must, as at present, be charged with it, but be entitled to recover his advances from the reversioner on the latter succeeding to the estate: as it is, he pays the tax on the whole, and recovers nothing.

We now come to the consideration of that large class of incomes obtained by means of professional pursuits, or trading occupations, or mere personal labour. And here the necessity for a somewhat different mode of treatment arises; since it is immediately obvious that such incomes, looked at prospectively, have no value. They do not even exist till the labour or skill which produces them is brought into activity: at any given moment the possessors of them may be considered (so far as their future incomes are concerned) as having nothing but the power of acquiring them; and it is this power alone in which (irrespective, of course, of any accumulation) their property may be said to consist. Now, in the case of the professional man, it is evident that this power owes its existence, in the first place, to his peculiar acquirements, and, in the second, to the possession of what is commonly called the "goodwill" of his business. The former are the result of the money sunk in his education, and the latter is what remains to him after a continued exertion of the former in any particular sphere of action, independently of his pecuniary gains in it. But this latter, that is to say, the "goodwill," or the connection secured in any pursuit, has a value in the market, and may be disposed of, usually at from two to five years' purchase of the net annual proceeds. Let us take the mean of this as the value of the "goodwill," viz., three-and-a-half years' purchase, and let us put the same value (one which must be considered as quite outside the mark) on the acquirements or cost of education, and we shall have seven years' purchase of the net annual income as the mean value at which to assess professional incomes of all kinds. That this mode of estimation is open to objection, I will not deny; but that it is not far from the truth must, I think, be conceded: nor will any one dispute that it is, at least, more equitable than that which now prevails, and which draws no distinction between incomes of this kind, and such as are altogether independent of life or health, or of any necessity for personal exertion. It is to be remembered, too, that the nature of the thing will not admit of precision, and that the utmost we can hope for in any system is, to avoid wide departures from what would be just in any particular case.

Such being the approximate value of an income obtained by the exercise of professional knowledge and labour, we have the means of determining the present worth of those derived solely from either one or the other. Thus the profits of a merely trading occupation may fairly be taken at three-and-a-half years' purchase,

the person so occupied having nothing more in reality than the "goodwill" of it, over and above such capital or other realised property as he might possess, and being under no necessity generally to make any outlay in learning how to exercise it. At the same rate might be estimated the annual gains of employés of every description having appointments of a permanent character : to them such appointments stand in the place of a "goodwill," and constitute in fact *their power of acquiring income*. On the other hand, cases will be found of professions or occupations depending solely on acquirements, such as those of the comedian, or the skilled artisan, living merely on the sale of his products, and having no permanently settled connection. These, however, although of a different class, would, were the system I am advocating adopted, be assessed at the same rate as the foregoing one, and no necessity would therefore arise for drawing any distinction between them.

On these principles, then, the incomes obtained by any kind of labour, whether professional or otherwise, would come to be divided into three classes : the highest grade to be assessed at seven years' purchase of the net annual proceeds ; the next, at half that rate ; and the last, as comprehending unsettled labourers merely, escaping, as they ought, the operation of the tax altogether. That difficulties would arise in determining to which of these classes particular occupations belonged, is certain ; but there is reason to believe that they would not be of a more formidable or insurmountable character than those frequently met with under the present system ; and it will be observed, that when the classification was once arranged, the assessment of the tax would be carried on with the utmost ease and simplicity. I must not, however, omit to mention, that it would be necessary, in the first place, to deduct from such incomes as we are now considering any interest of capital forming part of them, or any other extraneous portion ; these would, of course, have to be valued separately, and in accordance with the methods which have been previously described.

Were a system like this to be adopted, there would be no reason for excluding any one from its operation. The man with fifty pounds' worth of property might, with as much propriety, be called upon for his quota as the possessor of thousands ;\* nor would the one be at all a sufferer in a greater degree than the other. In this way there is reason to believe that a vast sum might be raised,

\* The same qualification, viz., the being worth £50, would be a fair and proper one on which to ground the right to vote.



although the tax were imposed at a very low rate: no fact, apparently, more frequently escaping the observation of Government, and even of writers on such subjects, than the extraordinary results arising when the capabilities of the great mass of the population are brought into play. The amount raised at present points to an aggregate property of six thousand millions; but the land alone was valued, *in the beginning of the present century*, at about one thousand millions; we know that nearly the same sum is now assured on houses and goods, and there is reason to believe that those still remaining uninsured are of very little less value; the holders of the National Debt possess nearly one thousand millions more; so that we have to set against the remaining two thousand millions, the capital embarked in every kind of speculation, the value of our mercantile navy, our live stock, and last, not least, the immense collection of our professional and trading incomes, to be estimated in the manner I have endeavoured to show they ought to be. Considering what must be the vast amount of these various resources, it seems scarcely possible to doubt but that a tax upon every fifty pounds' worth of property, at the present rate, viz., 1s. 9d. per cent., would more than suffice for all the purposes for which the present Income-tax is imposed; whilst, as the wealth of the country increased, the Government, by a gradual augmentation of the rate, might be enabled to dispense with such unjust and discreditable imposts as the Customs and Excise, and ultimately succeed in substituting one system of direct taxation, with its sole machinery, for the cumbrous and expensive processes which have so long preyed upon the vitals of the country.

Unfortunately, such a consummation is, under existing circumstances, as remote as can well be imagined; nevertheless, there is surely no reason why a trial of such a system should not be commenced on a small scale, and, if attended with success, an extension of it made from time to time, contemporaneously with the suppression of the more objectionable duties. Such a change might be effected with the greater confidence, inasmuch as the Government, by means of its present returns, could predict with tolerable accuracy what the results of the proposed plan were likely to be. Not having access to such returns, we are not in a position to make any precise deduction on this point; but what little is available will serve to show how such a deduction might be arrived at. Thus it appears, that of the total proceeds of the Income-tax, for the year ending April 1849,\* there was collected,

\* It will be observed that Schedule C is omitted here, in which, I presume, the

Under Schedule A . . . . .	£2,656,796
„ „ D . . . . .	1,529,398
„ „ E . . . . .	348,459

We may hence conclude that the incomes amounted,

Under Schedule A, to . . . . .	£91,079,740
„ „ D „ . . . . .	52,430,510
„ „ E „ . . . . .	11,945,800

and, valuing these on the principles now advocated, we may presume that the property under each schedule, and the amount of the tax upon it, would be nearly as follows :—viz.,

	Value of Property at the given epoch.	Amount of Tax at 1s. 9d. per cent.
	£.	£.
Under Schedule A . . . . .	3,036,000,000	2,656,796
„ „ D . . . . .	275,260,177	240,853
„ „ E . . . . .	41,810,300	36,559

Supposing, then, the above returns, so far as they go, to be correct, it will be seen that more than two-thirds of the total proceeds of the tax would be unaffected by the change, viz., the amount collected under Schedules A and C; and that the main deficiency would arise, as was to be expected, under the other schedules. But it is to be remembered, that a vast amount of property escapes taxation altogether under the present system, which, were the latter altered as proposed, would necessarily fall under the operation of the tax, and go far, there is reason to believe, to supply any deficiency so occasioned. As part, I believe, of such property, I may mention the immense collection of furniture, pictures, and stock in trade throughout the country, the uninhabited houses (enumerated in the last census at 166,000), the precious metals, manufactured or otherwise, our shipping, and live stock, policies of assurance, &c. &c., and whatever, in short, is unproductive, in the language of the Act of Parliament, of annual profits or gains. I cannot believe that any great difficulty would exist in setting a fair value on these, although I am aware that difficulty has been complained of in making the assessments for the purposes of the Poor-rate. It is done continually for a variety of purposes, and more especially for the Legacy Duty Office, in which the true mode of

National Debt, and an immense amount of other similar property, is comprised; all of it such as would yield the same, or nearly the same, revenue under the proposed change as at present.

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assessment is to a great extent actually adopted.\* Finally, it is well worthy of consideration, that if anything near the present proceeds of the tax can be realized by a charge of 1s. 9d. on the existing property of the country, the raising such charge to £1 per cent., or 100th part (no such very heavy deduction), would even now produce a sum sufficient for all the present wants of the Government, and enable it to relieve the country from every other description of Governmental tax, impost, or assessment whatever.

\* The "Form of Account" issued by the Inland Revenue "for the purpose of having the Legacy and Residue Duties charged and assessed," is as follows:—

	Description of Property.	Money received for Sale, if sold, or Value, if not sold.
* Property not converted into money is to be valued at the time the account is rendered, &c.	Cash in the House . . . . Cash at the Bankers . . . . *Furniture, Plate, Linen, China, Books, Pictures, Wearing-apparel, Jewels, and Ornaments . . *Wine and other Liquors . . *Horses and Carriages, Farming-stock, and Implements of Husbandry . . . . . *Stock in Trade . . . . . *Goodwill, &c., of Trade or Business	
† The unexpired term of years, the number and age of the Lives, the term of Renewal, and the clear net Rent reserved, should be stated.	†Leasehold Estates at . . . . Life Assurance Policies . . . Rents due . . . . . Mortgages and Interest due . . Bonds, Bills, Notes, and Interest due Book and other Debts . . . . Canal Shares . . . . . Railway and other Shares . . . Government and other Stocks . . Real Estate, &c. &c. . . . .	

It will be seen that this is precisely the "Form of Account" which would be necessary were a proper system of direct taxation adopted. The objections on the score of difficulty would seem, therefore, at once to fall to the ground.

*Contributions to the History of Insurance, and of the Theory of Life Contingencies, with a Restoration of the Grand Pensionary De Wit's Treatise on Life Annuities.* By FREDERICK HENDRIKS, Esq., Actuary to the Globe Insurance Company.

[Concluded from No. VI.]

(§ 16.) We now pass to the traces of the early practice of LIFE INSURANCE, a subject which has in general been but very slightly noticed.

The estimation of the value of human life in its rudest approxi-